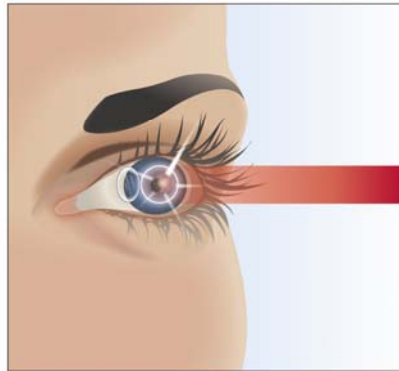


# Laser Eye Surgery



## Introduction

Suppose you are watching television one day and notice that you have to squint to see the screen clearly. You decide to visit an optometrist for a vision screening. After the screening, the optometrist tells you that you have a vision problem called myopia - nearsightedness. Does this mean you will have to wear eyeglasses or contact lenses in order to see? In the past, the answer to your question would have been yes. However, there is another option that you may decide is a better alternative than wearing corrective lenses: laser eye surgery. You may have noticed printed advertisements and television commercials that advertise a type of laser eye surgery called LASIK. What is laser eye surgery? Can laser eye surgery correct myopia? Is laser eye surgery something that you should have done to correct your vision problem?

## Task

Your job in this WebQuest is to learn all about laser eye surgery. You will learn what types of vision problems can be corrected by laser eye surgery. You will explore the many different types of laser eye surgery and identify the ones that are used to correct myopia. Because not every patient is a candidate for laser eye surgery, you will determine if you are a potential candidate for this type of vision correction. You will also find out about the advantages and disadvantages of laser eye surgery. Finally, you will answer a set of questions to demonstrate what you have learned about laser eye surgery, and make a decision about whether or not you would choose to have this surgery. You will record your decision and the reasons for your decision in your journal.

## **Process**

Read through the following set of questions before you begin your Internet research. As you explore each site, look for answers to the questions.

Questions about *Laser Eye Surgery*:

1. What common vision problems can be corrected using laser eye surgery?
2. What type of laser is used in laser eye surgery?
3. What do the letters LASIK stand for? What do the letters PRK stand for?
4. What kinds of vision problems can be corrected by LASIK surgery? By PRK surgery?
5. Who should NOT have laser eye surgery?
6. Suppose you have myopia. Explain why you would, or would not, choose to have laser eye surgery in order to correct your vision problem. Use information from your Internet research to support your position.

## **Resources**

Look at the Web sites given here to find the information that will enable you to answer questions about laser eye surgery. Keep in mind that not all Web sites are written specifically for students. Some of what you read might be challenging.

Laser Eye Surgery: Is it worth looking into?

<http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/SurgeryandLifeSupport/LASIK/ucm061358.htm>

Comprehensive Info on LASIK and Other Vision Surgery Techniques

<http://www.allaboutvision.com/visionsurgery/>

The Lasik Procedure

<http://www.lasik1.com/index.html>

Laser Eye Surgery, PRK, LASIK: The Inventions of Sight

<http://www.prk.com/invention.html>

Introduction to Refractive Errors

<http://www.vision-institute.com/refractive/index.html>

## **Evaluation**

Read this rubric to determine how you will be scored in this WebQuest.

Criteria					Points
	1	2	3	4	
<b>Task</b>	The task was not completed.	It appears that some effort was made to complete the task, but major ideas are missing.	The task was completed as assigned, but some of the rationale for the design was faulty.	The task was completed with great attention to detail and thorough documentation.	
<b>Process</b>	The process was not followed.	The research was complete, but the journal entry and decision could have been better supported.	All the steps of the process were followed and the design was good.	It is clear that much effort went into the project. The ideas show a high degree of originality and imagination.	
<b>Journal Entry</b>	The journal entry was not completed, or it appeared that little effort went into the project.	The journal entry was well researched but lacked some key features needed for accomplishing the task.	The journal entry was well thought out and included arguments that were clearly supported by research.	The journal entry was organized and the decision was well supported. It is evident that much research went into the project.	

## **Conclusion**

In the process of completing this WebQuest, you've become familiar with the types of vision problems that can be corrected with laser eye surgery, and become informed about the types of laser eye surgery available. You have learned about both LASIK and PRK procedures in particular, and have identified who might be candidates for such surgeries. You have developed research skills as you explored the Web sites given and identified the relevant information to answer the set of questions above. Did your research convince you that laser eye surgery is an effective treatment for vision problems? If you have vision problems that can be corrected through laser eye surgery, would you choose this form of treatment?